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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/581,077

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Shigetaka Kinme

AI 416NP

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RABIN & Berdo, PC

1101 14TH STREET, NW

SUITE 500

WASHINGTON, DC 20005

EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/581,077 | <b>Applicant(s)</b><br>KINME ET AL. |  |
|                              | <b>Examiner</b><br>Greg Binda        | <b>Art Unit</b><br>3679             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2010 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

*Continued Examination Under 37 CFR 1.114*

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 12, 2010 has been entered.

*Drawings*

3. The drawings are objected to because the first and second sections described at paragraph 0014 and recited in claim 1 are not indicated in the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be

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labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, lines 16-18 recites the limitation, "the first section [of each relief recess] . . . being shorter than the second section [of each relief recess]". The interior boundaries of the sections are not defined (i.e. there is no known point of demarcation within the relief recess to determine where one section ends and the other begins. Without such boundaries, it's unclear how one is "shorter" than the other. Instead it appears the boundaries are arbitrary and thus any relief recess could be said to have two sections like that recited in the claim.

*Claim Rejections - 35 USC § 102*

6. Claims 1, 5, 6 & 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sekine, JP 2001-254755. Figs. 1-6 show a universal joint yoke 1 comprising:

a pair of tabs 2, 2', each with a through hole 6, each tab formed of a flat plate extending parallel to a predetermined axis and have a first end portion (left end of tab shown in Fig. 1), a

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second end portion (right end of tab shown in Fig. 1), and an intermediate portion disposed between the first and second end portions, and each having a through hole 6 formed in the second end portion for inserting a corresponding trunnion of joint cross 17 therethrough;

a coupling portion 3 which has an annular form enclosing the predetermined axis and couples the first end portions of the pair of tabs in a U-shape (see also paragraph 0014);

a cylindrical portion 4, 5 which extends from the coupling portion, has a center axis extending along the predetermined axis, and is united to a shaft 10;

a pair of relief recesses 13 which are respectively formed on inside surfaces of the pair of tabs and disposed from the second end portions to the intermediate portions of the pair of tabs., each recess 13 communicating (see Fig. 5) with a corresponding through hole 6 of a respective one of the tabs; and

a columnar relief space (see also “circle arc configuration” in paragraphs 0015 & 0020) which is defined by the pair of relief recesses between the pair of tabs and has a center axis extending along the predetermined axis, wherein

the cylindrical portion includes a slit 7 extending in an axial direction of the cylindrical portion.

Fig. 1 shows a the thickness of the cylindrical portion 4, 5 is thinner than a thickness of the respective tabs 2, 2'.

Figs. 2 & 5 show on the inside surfaces of the pair of tabs 2, 2' , a pair of relief recesses 14 each corresponding to only a part of the intermediate portions of the tabs.

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*Claim Rejections - 35 USC § 103*

7. Claims 2-4 & 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine.

a. Claims 2-4, 7, 8 & 10. In paragraph 0015, Sekine discloses the distance T between the outside surface and the tabs 2, 2' is less than 43mm. Fig. 1 shows a curved portion connecting an outer circumferential surface of the cylindrical portion to an outside surface of the coupling portion 3. Sekine does not expressly disclose the tabs 2, 2' have a thickness of 8mm or more, that the columnar relief space has a diameter of 30mm or more, the thickness of the cylindrical portion 4, 5 is 6mm or less, the outside diameter of the cylindrical portion 4, 5 is 28mm or more, and the radius of the curved portion is 8mm or more. However it would have been obvious to make the yoke so that the tab thickness is 8mm or more, the relief space diameter is 30mm or less, the cylindrical portion thickness and outer diameter is 6mm or less and 28mm or more respectively, and the radius of the curved portion is 8mm or more since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

b. Claim 9. In Fig. 1 Sekine shows the coupling portion 3 and tabs 2, 2' form a U-shaped section, but does not show the inner bottom portion of the U-shape section as curved with a radius of curvature of 20mm or more. However it would have been obvious one skilled in the art to curve the inner bottom portion since a change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*,

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357 F.2d 669, 149 USPQ 47 (CCPA 1966). Making the radius of the bottom portion so that it is 20mm or more would have been obvious for the same reason noted at item a.

*Response to Arguments*

8. Applicant's arguments filed January 12, 2010 have been fully considered but they are not persuasive. Applicant argues that in Sekine the relief recess 13 lacks a first section that is both further from the coupling portion 3, and shorter than a second section of the recess. However, since the recesses are not defined by any interior boundary, a second section in Sekine can arbitrarily be drawn so that it includes a greater portion of the relief recess 13 than a first section.

*Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 10:30 am to 8:00 pm with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg Binda/  
Primary Examiner, Art Unit 3679